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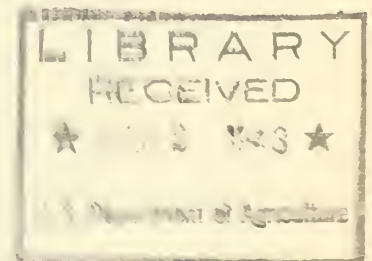
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**Price Administration,  
Priorities,  
*and*  
Conservation of Supplies  
Affecting Agriculture  
*in the*  
United States, in 1917-18**

*by*

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## EDITORIAL NOTE

A review of price administration, priorities, and conservation of supplies affecting agriculture in the United States during the first World War reveals a wealth of information which is valuable in the planning and administering of a similar program during the current national emergency.

This contribution to the *Agricultural History Series* sketches the highlights of our experience in 1917 and 1918. Thus, it presents a general view of the field and indicates specific phases in which more intensive study might be profitable in connection with the current program.

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This series is intended as a vehicle for presenting the results of research in agricultural history conducted throughout the Department of Agriculture. Edited in the Bureau of Agricultural Economics, with the aid of a Department advisory committee, the series will include monographs issued at irregular intervals as valuable materials and results of research become available.

# PRICE ADMINISTRATION, PRIORITIES, AND CONSERVATION OF SUPPLIES AFFECTING AGRICULTURE IN THE UNITED STATES, IN 1917-18

by

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## INTRODUCTION

What happened to agriculture in World War I that may help to guide us in World War II? Before trying to answer that question, let us look for a moment at some of the changes in the last quarter-century—not only in agriculture, but in our economy as a whole. Then we shall examine the effect of wartime measures on purchases, production, and sales by farmers.

Motor vehicles have revolutionized agriculture during the last generation: production, by tractors; marketing, by motortrucks; and farm life, by automobiles. Before 1914 there were few automobiles and very few motortrucks on farms. The use of tractors was in its infancy. Electricity on a farm was a novelty, and there were no radios. Not only have power machines increased greatly in numbers, but tractors, combines, and other farm machines have been redesigned to fit the needs of family-sized farms. The widespread use of rubber tires on motor vehicles has brought home to farmers the importance of imports and prices of rubber to balance their realization of the importance of exports of surplus farm products.

Agriculture has been truly dynamic in the last 25 years—more so than ever before. Progress has not been limited to machines; marked changes have also taken place in plants, in ways of processing and using farm products, and in land use.<sup>1</sup> "Hybrid corn is as important among plants as the tractor is among machines,"<sup>2</sup> soybeans have spread through the Middle West like a prairie fire, peanut production has increased, tung trees are now grown in our southern States, and there has been a recent phenomenal rise of flaxseed production in California and Texas. All these changes have made our country less dependent on imports of vegetable oils, whereas, in 1917-18, practically all of the needed soybean oil and much of the peanut oil was imported.

Mechanization and commercialization have greatly increased capital requirements in agriculture. Farmers as a group—owners, tenants, and laborers—have become less self-sufficient and circumstances have made them more dependent upon aid from or cooperation with the Government.

Inland transportation has been greatly improved through expansion and improvement of the vast highway system and the development of motor transportation, pipe lines, and air travel. Regional specialization in agriculture and industry has

<sup>1</sup>U. S. Department of Agriculture, *Technology on the Farm*, 6-8 (Washington, D. C., August 1940).

<sup>2</sup>*Ibid.*, 21.

increased certain transportation requirements and decreased others, but our dependence on railroads is less than it was a generation ago. New industries have sprung up and old ones have been shifted to save on transportation and labor costs. Sometimes such changes have resulted from new sources of power, increased efficiency in the use of fuel, and improvements in technology.

Before the last great war, this country was dependent on Germany for several of the essential products such as potash, dyes, and optical lenses. Out of the unhappy experience that followed, several new industries were born in the United States; today some of them are producing a surplus for export. The rise of synthetic textiles such as rayon and nylon have lessened dependence on silk imports. During the World War this country was entirely dependent on Chile for commercial nitrates. Since then, nitrogen-fixation plants have been established and more are being built to provide most of our normal nitrate requirement. New insecticides and fungicides have reduced the agricultural needs for arsenic and formaldehyde.

#### WARTIME ACTIVITIES OF THE DEPARTMENT OF AGRICULTURE<sup>3</sup>

David F. Houston, then Secretary of Agriculture, called a meeting of the leading agriculturists of the Nation in St. Louis to convene April 9, 1917, 3 days after war was declared. At this meeting a comprehensive program was adopted, part of which proposed additional agricultural legislation. By August 10, 1917, the two most significant wartime bills dealing with agriculture became law—the food production act and the food control act.

Crop supplies here were relatively low when the United States entered the war, and the big problem for American agriculture was to increase food and feed supplies for this country and the hard-pressed Allies. Acreages of domestic crops reached a record high in 1917 and again in 1918. Legislation between 1913 and 1917, designed to promote peacetime agriculture, had provided a well-developed machinery for stimulating wartime agriculture. This legislation included the cooperative agricultural extension act, providing for the nation-wide system of county agricultural agents and home demonstration agents; the grain standards act; an act providing standards for certain containers for interstate shipments of fruits and vegetables; the cotton futures act, which established definite standards for cotton; the warehouse act, which in effect put certain storage houses in the public-utility class; the Federal farm loan act, creating a banking system to serve the farmers; a provision in the Federal reserve act, authorizing national banks to lend money on farm mortgages; and the Federal-aid road act, providing for cooperation between the Federal and State Governments in the building of roads.<sup>4</sup> The agricultural programs from 1913 to 1917 and particularly the wartime activities brought the Federal and State agricultural departments, agricultural colleges, and farm organizations into much closer cooperation than at any previous time.

<sup>3</sup>This is also discussed under "Conservation of Supplies" on p. 7-16.

<sup>4</sup>U. S. Department of Agriculture, *Department of Agriculture in the War*, by Dixon Merritt, 6 (Washington, D. C., 1920).



The food production act stimulated and originated work that has since grown into large proportions, furnishing economic information and analysis relating to agriculture—its past, present, and future. The act provided among other things,

That the Secretary of Agriculture, with the approval of the President, is authorized to investigate and ascertain the demand for, the supply, consumption, costs, and prices of, and the basic facts relating to the ownership, production, transportation, manufacture, storage, and distribution of, foods, food materials, feeds, seeds, fertilizers, agricultural implements and machinery, and any article required in connection with the production, distribution, or utilization of food.<sup>5</sup>

The food production act made available over \$11,000,000 for various activities designed to increase and conserve food and feed supplies. To meet the wartime needs, the number of county agents and home demonstration agents was greatly increased; a large-scale program was undertaken to reduce losses from diseases and pests affecting crops and livestock; a farm-help service was established in cooperation with the United States Department of Labor to bring farmers and farm laborers together; a survey was made in cities and towns to find experienced farm laborers who were willing to return to farm work; and the Government collection and dissemination of market news and agricultural statistics were expanded.<sup>6</sup>

The Federal Government and certain of the States set precedents in providing credit and in appropriating money to help farmers get seeds of good quality at reasonable prices. Federal aid was granted to relieve distress among farmers in drought areas. Farmers were encouraged to make greater use of labor-saving machinery, and defense councils in some States bought tractors, rented them to farmers, and sponsored tractor schools.<sup>7</sup> Many farmers and a number of local bankers with investments in horses were skeptical of or opposed to the introduction of tractors. The use of motortrucks was encouraged as a means of relieving the congestion of freight traffic and to aid in direct marketing of truck crops and other farm produce.<sup>8</sup>

### PRICE TRENDS AND REGULATION

The widespread regulation of prices in 1917-18 was a new and fruitful experience for the United States. Although applied late, and somewhat incidentally, and perhaps abandoned too soon, this price control was generally quite effective. The priority system for Government and private purchases alike apparently was a new method of control over industry.

Little was done to regulate prices until August 1917. By that time, wholesale prices were about 80 percent above their pre-war (1910-14) level. England and France had found it necessary to impose rigid controls of their economies, but the United States delayed similar measures until an acute situation forced governmental action here and there. Conservatism and inertia played their part in this delay. Under

<sup>5</sup>U. S. *Statutes at Large* (1917-19) 40 (pt. 1): 273.

<sup>6</sup>Benjamin H. Hibbard, *Effects of the Great War upon Agriculture in the United States and Great Britain*, 71, 82-85 (New York, 1919).

<sup>7</sup>*Ibid.*, 89.

<sup>8</sup>*Ibid.*, 96-98.

wartime conditions, such governmental control, once begun, became cumulative in all directions. About 4 percent of the more important commodities were under price control in 1917 compared with 42 percent at the time of the Armistice.<sup>9</sup>

Prices were affected by many kinds of control—some direct, others remote. Price administration, priorities, and short-time conservation measures all had a common general purpose, namely to stabilize prices at the lowest, yet fair, level that would insure the desired distribution of the necessary output. The various price regulating agencies had such an over-all objective, but their immediate objectives varied somewhat. The primary concern in price fixing by the War Industries Board was to stabilize prices and keep down the cost of purchases by the Government. The efforts of the Fuel Administration and more particularly those of the Food Administration were directed toward protecting the public from shortages and excessive prices.

The increase in living costs before our entry into the war in 1917 was largely offset by increased wages. Later, family earnings were reduced by mobilization of manpower for the Army, prices continued to rise, and certain necessities were rationed. This situation led to unrest among the lower and middle income groups and a bitter denunciation of war profiteering.

President Wilson foresaw the difficulties involved in keeping prices for Government and Allied purchases below the level of prices to the public for similar items. Early in the summer of 1917, he established a one-price policy for all purchasers. Competitive bidding by the various branches of our Government, the Allies, and the public had led to a great speculative rise in wheat prices in May 1917; this, perhaps as much as any one thing, led to a coordination of purchases, and forced a reluctant Congress to enact legislation delegating necessary price-control powers to the Chief Executive.

Price regulation at first involved considerable guess work and experimentation. As cost studies were made available, the technique of price fixing was refined. In fixing prices—not just margins—the "bulkline" method was customarily used.<sup>10</sup> In addition, certain criteria such as the following were utilized in arriving at costs and prices: (1) Provision of a fair price to the public; (2) elimination of profiteering; (3) holding to simplicity and unity of price schedule in any district; (4) stimulation of efficient production; (5) discouragement of inefficient production; (6) fulfilment of the provisions of the act for a fair price covering costs plus reasonable profits to the producer.<sup>11</sup>

"There has been no other revolution in prices at once so sudden, so violent, and so widespread as the revolution that accompanied the War of 1914-1918."<sup>12</sup> If the price of an item merely doubled during the war it attracted less attention than a

<sup>9</sup>Percentages of the 1,366 commodities included in the index numbers of wholesale prices compiled by the Price Section of the War Industries Board. See U. S. War Industries Board, *Government Control over Prices*, by Paul Willard Garrett (Price Bulletin 3), 416 (Washington, D. C., 1920).

<sup>10</sup>The array of costs for individual firms at a given time and with a given output was neither a supply curve nor a cost curve, but apparently constituted what Alfred Marshall called "a particular expense curve."

<sup>11</sup>Herbert Stein, *Government Price Policy in the United States during the World War*, 97-105 (Williamstown, Mass., 1939).

<sup>12</sup>U. S. War Industries Board, *History of Prices during the War*, by Wesley C. Mitchell (Price Bulletin 1), 3 (Washington, D. C., 1919).



price that remained stable. Prices of some commodities such as dyes, coal-tar products, drugs, potash, and some other minerals increased greatly. Dependence on Germany for potash, optical lenses, dyes, and certain chemicals sent their prices skyward when the war cut off imports and until their production could be expanded in this country. A few items like coffee, cocoa, rubber, buttons, smokeless powder, some fruits, nuts, and essential oils actually declined in price during the war. Many rubber plantations in the East Indies came into production during this period when much of the market in Europe was cut off. The decline in prices of rubber at point of origin was about equal to the increased cost of transportation to the United States.<sup>13</sup>

Although there were sensational price increases, and a few decreases, the price fluctuations of 93 percent of the commodities were within comparatively moderate limits during the war—a comfort to index-number makers.<sup>14</sup> Prices of the main staple foods did not rise far above the general level of prices, for such items are virtually tied to the limited family budgets and the prices of substitutes. The major jumps in prices came in the winter of 1915-16, when European war orders began to compete on a large scale with domestic orders, in the fall of 1916 when steel prices shot upward, and particularly in the spring of 1917 when the United States entered the war. Governmental control over prices was greatly expanded in August 1917, and the general level of wholesale prices declined a little during the next 6 months, after which there was a moderate increase until the war ended. The peak of the great price rise came in the middle of 1920.

## PRIORITIES

The term priority implies discrimination—purposeful discrimination.<sup>15</sup> The main objective of applying priorities is to direct the flow of materials and services from nonessentials to wartime needs. In emergencies, the right of free choice in producing and selling cannot safely be left to chance and possible favoritism. Priorities are a necessary accompaniment to price fixing when demand far exceeds supply, and the use of either without the other would go far to disturb morale among the civilian population.

Sixty priorities circulars were issued between September 21, 1917 and December 20, 1918. *Circular No. 60* revoked, as of January 1, 1919, all rules, regulations, and directions issued by the Priorities Division.<sup>16</sup> Rules and regulations governing priorities in production were issued by the Priorities Division as *Circular No. 4* on July 1, 1918. On the front cover thereof appears the following: "THE TEST. In requesting priorities the petitioner should join with the Committee in applying the test: TO WHAT EXTENT, IF AT ALL, WILL THE GRANTING OF THIS APPLICATION CONTRIBUTE, DIRECTLY OR INDIRECTLY, TOWARD WINNING THE WAR; AND IF AT ALL, HOW URGENT IS THE NEED?"

<sup>13</sup>*Ibid.*, 54-56.

<sup>14</sup>*Ibid.*, 21.

<sup>15</sup>U. S. War Industries Board, *Priorities Circular No. 5*, p. 2 (Washington, D. C., July 22, 1918).

<sup>16</sup>U. S. War Industries Board, *American Industry in the War*, 48-52 (Washington, D. C., 1921).

Priorities constitute a powerful weapon, the mere existence of which commands respect. In the words of Edwin R. Parker, chairman of the Priorities Board in 1918: "We never used any compulsion. Of course, if a man didn't like the priority schedule and didn't want to play with us, he found he couldn't get any fuel or any railroad cars or any materials or any labor or anything; but we never used any compulsion."<sup>17</sup> Specific legislative provisions for priorities were made only in the case of transportation. In other cases, priorities were in the form of requests by administrative agencies, but it was well known that the Government had power to make these requests effective.

In September 1918 a statement issued in *Priorities Circular No. 22* read as follows: "Steel is now the most precious metal, and every pound of it consumed where some other substance can be substituted is a criminal waste of material urgently needed for the war." Steps were taken to discontinue the use of steel in making tobacco containers. Manufacturers were required to curtail sharply the output of baby buggies, and dealers and consumers were urged to repair existing ones whenever possible.

By October 1918, it was announced in *Priorities Circular No. 49* that "The labor situation is the most serious problem that now confronts our Nation. Within the next few months our military force will be enlarged by at least 2 million men and a majority of these recruits must come from our industries. To prevent a substantial slowing up, if not a complete collapse, of the industrial war program it will be necessary that all labor not now so engaged be shifted as rapidly as possible from industries or activities which are not of exceptional war or industrial importance. The machinery which has been devised for this shifting process is the United States Employment Service."

As the War progressed retrenchment became necessary in nonessential industries. The choice seemed to be the elimination of the least essential industries or the rationing of a larger number so as to preserve, at least in skeleton form, those industries not immediately essential to the war program. The latter policy was adopted, for it was thought that to prohibit or kill certain industries would create local hardships and entail large economic losses during and after the war. Furthermore, the Industrial Adjustments Committee after a searching analysis of industries found only 25 that "might fairly be classified as producers of nonwar commodities," and concluded that the prospective gains from complete prohibition of these would not offset the losses.<sup>18</sup>

Commandeering implies that just compensation will be given, whereas conscription does not. In connection with commandeering, there was the problem of determining "just compensation." Market value in time of war is often created by emergency activities of the Government and is, therefore, not a fair test of just compensation. The War Industries Board consequently adopted the cost of production plus a reasonable profit as a basis for such valuations.

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<sup>17</sup>Stein, *Government Policy during the World War*, 115.

<sup>18</sup>See "Minutes of Meetings of Industrial Adjustments Committee of Priorities Board," in U. S. War Industries Board, *American Industry in the War*, 350-354.

## CONSERVATION OF SUPPLIES

Conservation measures in 1917-18 were essentially of an emergency or short-time nature. They dealt primarily with reducing wastes, eliminating nonessentials, promoting economy in the use of space and substitute materials, standardization, curtailing styles, sizes, and shapes, and deferring postponable demands for durable goods. By applying these measures throughout the economy, more materials and labor were diverted to the war program.

### FARM MACHINERY AND EQUIPMENT

Substantial savings in the agricultural-implement industry were effected through conservation measures. Operations were simplified, and stocks were reduced to a relatively few standardized items. For example, the number of sizes and types of steel plows was reduced from 312 to 76, disk harrows from 589 to 38, planters and drills from 784 to 29, buggy axles and buggy springs from more than 100 to 1.<sup>19</sup> These changes cut across local habits and prejudices, but they interfered little if any with farming efficiency.

The production of agricultural implements was urged and encouraged in 1917-18 as a means of increasing the supply of foodstuffs and of releasing much-needed labor to other industries. *Priorities Circular No. 35*, issued September 30, 1918, outlined a change in policy for the ensuing year to meet urgent needs for steel and iron.<sup>20</sup> Production of machines that required more labor than would be saved in one season's use was to be discontinued. The allotment of iron and steel for the farm-implement industry for 1919 was reduced to 75 percent of the 2,000,000 odd tons used the previous year. Manufacturers who made less than 50 tractors in the previous year were considered to be in a developmental stage and their output was limited to not more than 50 in the next year.

Manufacturers agreed to reduce the number of styles and sizes of automobile tires from 287 to 32 and later to 9. The manufacturers of automobiles had been requested to reduce their output by one-fourth in the first half of 1918 and to one-half of normal for the latter half of 1918. Consideration was given to stopping all manufacture of passenger automobiles after January 1, 1919 if the war continued.<sup>21</sup>

The sharp rise in prices of farm machinery in 1917-18 brought many complaints from farmers. In May 1918, the United States Senate adopted a resolution directing the Federal Trade Commission to investigate and report on the causes of high prices of agricultural implements.<sup>22</sup> Difficulties in obtaining certain farm machinery began to interfere with the much-desired expansion in production of foodstuffs. In June 1918, all manufacturers and distributors of farm implements (except small retailers) were required to obtain Federal licenses. The licensing and regulation was administered by the Secretary of Agriculture. The Department of Agriculture did not subject

<sup>19</sup>*Ibid.*, 67.

<sup>20</sup>*Ibid.*, 374-377.

<sup>21</sup>*Ibid.*, 270-272.

<sup>22</sup>U. S. Federal Trade Commission, *Report of the Federal Trade Commission on the Causes of High Prices of Farm Implements* (Washington, 1920, 713p.).



the farm-machinery industry to direct regulation of prices, but resales of farm machinery within the trade, hoarding, and other measures that might restrict the available supply and unduly enhance the prices of farm machinery were expressly prohibited.

With the entry of the United States into the war there was need for curtailing the building industry which had been very active the year before. A billion feet of lumber were needed for cantonments. Materials and labor were diverted to war construction and prices were fixed for certain items. After September 1918 written permits were required for many types of construction, for building repairs and extensions in excess of \$2,500, and for any new farm buildings costing over \$1,000.<sup>23</sup>

### FERTILIZERS

The President, by proclamation in February 1918, created the office of Fertilizer Control in the Department of Agriculture to license and regulate manufacturers, importers, and distributors of fertilizer materials. The Department of Agriculture helped the fertilizer industry to obtain cars and fuel to meet its transportation needs and gave direct assistance in the distribution of nitrate of soda to farmers.

Nitrates, phosphates, and potassium are the principal fertilizer materials. The United States had an abundance of phosphates, but depended on Chile for nitrates and on Germany for potassium. In 1913, the United States imported about a million tons of potash from Germany, nearly all of which was used for fertilizer.<sup>24</sup> This supply was cut off soon after the war broke out in 1914. Wholesale prices of muriate of potash in the United States averaged \$39 a ton in 1914, \$385 in 1916, and ultimately went as high as \$500 a ton. Domestic production rose from 10,000 tons in 1916 to 55,000 tons in 1918.<sup>25</sup> Agriculture had to get along practically without potash during the war, and the deficiency, although not serious, apparently had an adverse effect on yields and quality of crops in some areas for about 2 years after the war.

Today the potash-production capacity in this country—mostly in New Mexico and California—probably is sufficient for all anticipated needs. Exports of potash from the United States have been put under license regulation because of the increased foreign demand and as a means of insuring an adequate domestic supply at reasonable prices.

The threatened shortage of nitrates was a serious problem for the United States and the Allies in 1917-18.<sup>26</sup> As the United States may face a shortage in 1942, a summary of the experience during the last war may be pertinent.<sup>27</sup> At that time this country was entirely dependent on Chile for nitrate of soda, as no nitrogen was produced in the United States by the nitrate-fixation process until after the war.

<sup>23</sup>U. S. War Industries Board, *American Industry in the War*, 381-382.

<sup>24</sup>U. S. Department of Agriculture, *Yearbook*, 1916, p. 301.

<sup>25</sup>U. S. Federal Trade Commission, *Report of the Federal Trade Commission on the Fertilizer Industry*, 26 (Washington, D. C., 1923).

<sup>26</sup>U. S. War Industries Board, *American Industries in the War*, 157-161, 390-391, and *Government Control over Prices* (Price Bulletin 3), p. 338-341, 810.

<sup>27</sup>The additional production of new plants toward the end of 1942 should go far to relieve shortages of nitrates that may develop. The growth of legumes enables a farmer to reduce the adverse effect of a temporary shortage of nitrate fertilizers, whereas few farmers can get potash except by purchase.

Normally most of our imports of nitrate are used in making fertilizers. In war or near-war times a large quantity of nitrates is essential in the production of acids for the nitrating process in the manufacture of powder and explosives. The War Industries Board controlled the importation of nitrate of soda and established prices based on prices in Chile, plus freight and other costs. Prices of nitrate in Chile, by April 1917, were three times their pre-war level owing to competition among buyers for foreign Governments and heavy buying by international speculators. In April 1917, the War Industries Board informed munitions manufacturers that they need not cover their nitrates by option or inquiry because the Government would guarantee them a sufficient supply at 4-1/4 cents a pound—about half the prevailing market price at that time. A few months later the United States Government made a secret transaction with the Government of Chile whereby it took over all German-owned nitrates in Chile at about 60 percent below current prices. When this deal became known in October 1917 there was a collapse in the speculative market for nitrate of soda.

The problem of shipping nitrate of soda was given special consideration. Shipping space was allocated to the four American importing companies and the necessary coal, fuel oil, bags, and railroad equipment were sent to the nitrate fields in Chile. The Department of Agriculture in the fall of 1917 was allowed 109,000 long tons of nitrate of soda for distribution to farmers in the spring of 1918. Only 67,000 tons of this were turned over for agricultural purposes because of the shortage of ocean shipping and the need for diverting considerable quantities to France. The nitrates available for the making of munitions in this country apparently were adequate at all times. Government control of nitrates may be said, therefore, to have been successful from the standpoint of supply and especially with regard to price fixing and distribution.

The great increase in industrial activity and the shortage of transportation made it necessary to curtail the use of coal wherever feasible. As a large quantity of fuel is used in the manufacture of lime, a farmer was allowed only 1 ton of lime a year for agricultural purposes, and was required to make a full statement in writing, under oath, and to have the request approved by State officials, in order to get additional supplies. As a general rule, the use of lime was confined to circumstances wherein it was calculated to produce direct and immediate results rather than long-time results that would not be manifested until after the war. All limitations on the production and use of lime or pulverized limestone for farm purposes were removed on the day the Armistice was signed.<sup>28</sup>

"In the latter part of 1917 the War Department issued an order commandeering the output of ammonium sulphate . . . but very little of the output was actually commandeered."<sup>29</sup>

#### INSECTICIDES AND FUNGICIDES

An unprecedented demand for arsenic for insecticides, and military purposes drove prices, in late 1917, to nearly 500 percent of the pre-war level, despite a sharp increase in production. A proclamation in November 1917 required all

<sup>28</sup>U. S. War Industries Board, *Priorities Circular No. 57*, p. 2 (Nov. 11, 1918).

<sup>29</sup>U. S. War Industries Board, *Government Control over Prices* (Price Bulletin 3), p. 808.



manufacturers and handlers of white arsenic and insecticides containing arsenic to take out a license within 5 days. Prices were fixed at 9 cents a pound—a reduction of about 50 percent. A shortage of arsenic seemed imminent with mounting Army needs. All deliveries to glass manufacturers were stopped immediately. Economies were effected in the manufacture of sheep dip and Paris green, and substitutes were used for some insecticides. By these strong measures the needs of the Army and insecticide makers were met.<sup>30</sup>

A study of costs indicated that there had been an unwarranted increase in prices of formaldehyde. The Government, therefore, took effective measures early in 1918 to fix a uniform price at a level substantially below the existing market price.<sup>31</sup>

#### LEATHER PRODUCTS

The war brought a tremendous increase in the demand for leather goods. Fifty million pairs of a new type of shoes for the Army were required, in 1917 and 1918; 3-1/2 million leather jerkins, and twice as many pairs of heavy leather work gloves were delivered to the Army. Saddles and harnesses were needed in such large numbers as to revive a decadent trade; to effect economies, the manufacture of light harnesses was discontinued before the end of the war. Styles of riding saddles were reduced from 200 to 36 and of horsecollars from 60 to 15.<sup>32</sup> Such measures effected great savings in materials, labor, transportation, storage, and capital requirements all the way from producers to consumers.

Shoes afforded a good example of conservation through simplification and standardization, and the effects of wartime control on changes in styles and habits, under one of the most ambitious programs of the War Industries Board.

In June 1917, a circular letter was sent to the shoe manufacturers requesting cooperation in reducing the number of styles for the spring of 1918, especially those requiring a needless amount of material and capital.<sup>33</sup> By December 1917, greater economies were deemed necessary. A large part of the shoe leather was imported, shipping space was vitally needed for other purposes, and much of the available leather supply was needed for military purposes. Instructions were issued limiting the height of shoes to 9 inches for women and 7 inches for children for the fall of 1918. Manufacturers and tanners were requested to restrict colors for leather shoes to black, two shades of tan, and two shades of gray for men, and the same, with the addition of white, for women. One tanner, who had been manufacturing leather in 81 colors was able to simplify his business by using only 3 colors. Maximum heights for shoes were reduced further for the 1919 spring season and the sale of low shoes was encouraged. Manufacturers were requested not to introduce or use any new-style lasts, to reduce sharply the number of samples, restrict returns of merchandise, and eliminate

<sup>30</sup>*Ibid.*

<sup>31</sup>*Ibid.*, 347-348.

<sup>32</sup>U. S. War Industries Board, *American Industries during the War*, 247-254.

<sup>33</sup>U. S. War Industries Board, *Price Regulation and other Governmental Control of Boots and Shoes during the War* (Price Bulletin 13), p. 2-3 (Washington, D. C., December 1918).

two-tone effects, ornaments, decorations, beading, and heels on women's shoes in excess of 2-1/8 inches. The use of patent leather was limited to low, black shoes for women and to high, black, full-dress, button shoes and pumps for men. All other button shoes for men were to be discontinued.

The War Industries Board had a plan for reducing all shoes to four classes and fixing their prices, but the abandonment of this plan was announced a few days after the Armistice. Even more drastic measures would doubtless have been taken if the war had continued another year. Careful consideration was given to the proposal of making a single type of shoe, of black leather to be called the "liberty shoe."<sup>34</sup> Plans were being considered for reducing other clothing items to a few simple styles along with rationing if necessary.<sup>35</sup>

The plan of Parisian stylists for longer dresses brought pressure through diplomatic channels for economy measures. The rapid trend toward shorter skirts thereafter has been traced directly to this action.<sup>36</sup>

The Priorities Board received many letters urging drastic restrictions upon such businesses as ice-cream parlors and jewelry shops. The writers of these appeals, because of the way in which many of them began their letters, became known as "Forgodsakers."

#### FOODS

The United States has long been a land of surplus food, but the trend of this surplus has been downward during the twentieth century. In the first World War the shortage of ocean shipping practically excluded from the European market far-off lands like Argentina, Australia, and India. The United States and Canada therefore became the bread basket for such big deficit-food countries as Great Britain, France, and Italy. Europe in the not-distant future may be even more in need of food than during World War I, when this country helped to supply not only Great Britain, but France, Italy, and some other countries. Meats, fats, wheat, and sugar were in great demand by our Allies in Europe at that time. In the present emergency the supply of wheat is fairly adequate. Emphasis on increased production may center, therefore, on meats and fats, particularly pork, vegetable oils, and such dairy products as evaporated milk and cheese.

The Federal and State Governments have done a good deal through research and educational work to insure abundant and cheap foods. In 1917-18 more direct and positive measures were employed by the Government to increase the food supply. Appeals to patriotism, exhortations, and special inducements, with the help of higher prices to farmers, brought the desired results. The Department of Agriculture with its widespread machinery and centralized authority in 1917—as later, in 1933—was able to rise quickly to the big task it was suddenly called upon to perform. A great deal of the work ahead in 1917 had been anticipated and begun before the food production act became law in August 1917.

<sup>34</sup>U. S. War Industries Board, *American Industry in the War*, 252-254.

<sup>35</sup>James L. Tyson, "The War Industries Board, 1917-18," *Fortune*, 22(3):supp. p. 16 (September 1940).

<sup>36</sup>*Ibid.*, 8.

City dwellers as well as farmers were brought into the food-production picture. War gardens sprang up almost overnight on vacant lots in cities and towns. More than a million acres of city-lot land, most of which had not been previously tilled, was in gardens in 1917. The number of new gardens in that year was estimated at 2 million with a further increase in number and productiveness in 1918.<sup>37</sup> At the same time, there was a greater consumption of protective foods such as vegetables and fruits. Larger interstate shipments of perishables, with the aid of standardization and market news reports, home gardens, and a marked increase in home canning of fruits and vegetables, helped to provide a more balanced diet. The newly-discovered vitamins A and B, to be found particularly in dairy products and leafy vegetables, respectively, were publicized by the Food Administration as necessary for health and growth.<sup>38</sup> The increase in gardening and canning inspired many local organizations, especially women's clubs, to operate small markets.

Direct governmental control of retail prices in 1917-18 was confined chiefly to foods and fuel. The far-reaching control of food prices consisted mainly of a flexible and somewhat indefinite system of margins. Raw materials on the other hand, were subjected to a rather rigid governmental policy with fixed prices. The Food Administration through its extensive licensing powers - backed by stiff penalties - spread its control over the whole food industry, except farm and garden producers and small retailers. In licensing food dealers, an attempt was made to limit them to a "reasonable margin of profit" above cost.<sup>39</sup>

There were ample teeth in the laws providing for the Food Administration. In regard to so-called necessities it was declared to be unlawful to destroy them for the purpose of enhancing their price; to waste or monopolize them; to make any unjust or unreasonable rate of charges in their handling; or to restrict the facilities for transporting, producing, harvesting, manufacturing, supplying, or storing them. The President was authorized to buy and even to requisition foods.<sup>40</sup>

The Food Administration in April 1918 announced a series of maximum profit margins allowable at wholesale on the more important foods. In order to protect high-cost producers and yet not be too favorable to low-cost producers, a high and low maximum margin of profit was fixed on each item, the higher margins being applicable to dealers with high costs and the low margins to those with relatively low costs. No minimum margins were established because such a policy would tend to discourage reductions in price that might result from competition.<sup>41</sup>

Sharp increases in prices of canned foods and dried fruits led to control measures to curb speculation and prohibit long-time contracts.

Rice was used extensively as a substitute for wheat during the wheat shortage. Rice dealers were licensed, resales were prohibited to prevent speculation, and millers were restricted in the quantity of rice they could keep on hand. Supplies of rice were low at the end of the 1917 crop season, and by August 1, 1918 there was practically no carry-over of rice in this country.

<sup>37</sup>Hibbard, *Effects of the Great War upon Agriculture*, 80.

<sup>38</sup>Richard Osborn Cummings, *The American and His Food*, 141 (Chicago, 1940).

<sup>39</sup>U. S. War Industries Board, *Government Control over Prices* (Price Bulletin 3), p. 40-50.

<sup>40</sup>*Ibid.*, 45.

<sup>41</sup>*Ibid.*, 52.



Confidential weekly reports on retail prices were obtained from special consumer reporters in more than 1,300 towns and cities by the Food Administration. These were one of the most effective checks on retail profiteering. If prices got far out of line in a city an investigator was sent to determine the reasons. At one time the Food Administration issued some "fair price" lists. Weekly retail prices "actually paid" were checked against what the consumers "should pay" and price lists were issued for some 30 foods in a great many markets. On November 7, 1918, the Food Administration published a list of maximum retail margins and provided for numerous local committees to set actual prices.<sup>42</sup> The report system grew until it became an annoyance to licensees as well as a costly and burdensome job, so a system of field inspection was set up to obviate the need for most of the license reports.

The manifold problems of food control may be indicated by a brief summary of the situation relating to wheat, sugar, and meats. The United States and Europe were faced with an acute wheat shortage in 1917. After a record-breaking wheat production of more than a billion bushels in the United States in 1915 the domestic crops of 1916 and 1917 were considerably below normal. At the same time reduced crops in Europe and the growing shortage of ships to bring wheat from Argentina, Australia, and India, led to a great increase in demand for wheat in the United States and Canada. Uncontrolled and almost panicky bidding for wheat by buyers from allied and neutral countries drove wheat futures in Chicago to an all-time high of \$3.25 a bushel on May 11, 1917. The Chicago Board of Trade then suspended trading in May wheat futures and ordered a settlement of outstanding contracts at \$3.18 a bushel.<sup>43</sup> Cash wheat was then selling at about \$3.40 a bushel.<sup>44</sup>

Wheat was the only commodity for which a minimum price was established by act of Congress. The food act of August 1917 provided a minimum price of \$2 a bushel for the next year's wheat crop which would begin moving to market about June 1918, the purpose being to encourage fall and spring plantings of wheat by offering a price guarantee.<sup>45</sup> President Wilson, by proclamation in late August 1917, established a "fair price" based on \$2.20 a bushel for Northern Spring wheat at Chicago for the remainder of the 1917-18 marketing season. In February 1918 the President announced that the \$2.20 minimum price would continue in effect for the 1918 crop.<sup>46</sup> Congress passed an act providing for a minimum price of \$2.40 per bushel for wheat at all country stations. The President vetoed this measure on July 6, 1918, but on September 2, 1918, he extended the guaranteed wheat price to the 1919 crop.<sup>47</sup>

The guarantee of prices was accompanied by an increase in wheat acreage in the United States from 47,000,000 in 1917 to 61,000,000 in 1918 and the all-time high of 73,700,000 acres in 1919. This jump was accompanied by some decline in the acreage planted to corn, oats, and barley, especially in 1919.

<sup>42</sup>*Ibid.*, 137-139.

<sup>43</sup>All futures trading in wheat at Chicago was suspended on Aug. 25, 1917 and resumed on July 15, 1920.

<sup>44</sup>Chicago Board of Trade, *The Sixty-First Annual Report of the Trade and Commerce of Chicago* . . . , 1918, p. 64 (Chicago, 1919).

<sup>45</sup>The \$2.00 minimum price per bushel applied to No. 1 Northern Spring wheat at the principal primary markets, with appropriate differentials for other grades.

<sup>46</sup>In June 1918 the guaranteed price was raised to \$2.26 a bushel owing to a 25 cent per bushel advance in railway freight rates.

<sup>47</sup>Wilfred Eldred, "The Grain Corporation and the Guaranteed Wheat Price," *Quarterly Journal of Economics*, 34:700 (August 1920).

The large wheat crop of 1918 and the price guarantee led to unusually heavy marketings early in the season. The wheat carryover on July 1, 1918 was uncomfortably small, and stocks were being accumulated by the United States Grain Corporation to supply the Allies with wheat under a contract arrangement. During the 1918-19 crop-marketing season the Grain Corporation purchased wheat and flour to an equivalent of 385 million bushels of wheat.<sup>48</sup>

Early in 1919 it looked as though the Government would have to dip deep into the Treasury to make good its price guarantee. In March 1919 Congress appropriated \$1,000,000,000 for this purpose, but severe crop damage, which sharply reduced the yield of spring wheat, and the post-war boom saved the Government from heavy losses on the 1919 wheat crop.

Widespread use was made of licensing powers. The Food Administration in 1917 licensed all flour mills that had a daily capacity of 100 barrels; later, this was extended to mills of 75 barrel capacity. Measures were taken to prevent speculation which had driven wholesale flour prices at the mill to as much as \$16 a barrel in the Spring of 1917. Governmental control was followed by a marked reduction in flour prices. The designation of a "standard flour" in the place of innumerable grades and brands greatly simplified the problem of regulation. Uniform standards for classes and grades were promulgated by the United States Department of Agriculture and made mandatory for the grading of all grain moving in interstate commerce.

The Food Administration was highly successful in its effort to control and eliminate speculation in wheat and its products. Grain exchanges complied with a request to suspend futures trading in wheat. A spot market practically disappeared under a system where the mills did all their buying in terminal markets through the Grain Corporation. "The licensing of all elevators and mills having storage facilities, and the limitation of the storage period to thirty days, put out of business the line and terminal elevator companies, so far as the speculative handling of wheat was concerned. More effective still was the practically universal agreement entered into by the millers not to pay for wheat a price in excess of the fair price adopted by the Food Administration for government purchases."<sup>49</sup>

The United States Grain Corporation was set up primarily to buy wheat from elevators and warehouses for the Government and to conserve and distribute existing wheat supplies. Buying agencies were set up at all important markets thus maintaining the established minimum price. The task of obtaining an equitable distribution of wheat and flour was difficult, the more so because of the short crops, great demand, and shortage of transportation facilities on land and sea.

In June 1917, the Food Administrator, Herbert Hoover, made an appeal for a voluntary reduction in sugar consumption. About a year later the Government had taken control of sugar all along the line from producers to consumers. The rationing of sugar brought home to many rural people in practical form a realization that their country was at war and that everyone must make some sacrifices. Sugar-beet growers were asked, then urged, and finally "hired" to increase production. "On September 18, 1918 an agreement with each individual beet sugar producer was entered into by

<sup>48</sup>*Ibid.*, 702.

<sup>49</sup>Wilfred Eldred, "The Wheat and Flour Trade under Food Administration Control: 1917-18," *Quarterly Journal of Economics*, 33:59 (November 1918).



Mr. Herbert Hoover.<sup>50</sup> A similar agreement was made with the Louisiana sugar cane producers. At that time domestic production of sugar beets supplied about one-sixth and Louisiana cane growers supplied about one-sixteenth of the sugar requirements of this country.

Increased domestic production of sugar was recognized as uneconomical from a long-time standpoint, but owing to the war national policy was determined largely by immediate and near-future needs. The shutting off of German sugar supplies in 1914 and the sinking of ships by submarines made England and France mainly dependent on the Western Hemisphere for sugar. Because of the scarcity of ocean shipping facilities among the Allies, sugar was worth much more in the United States and Cuba than in far-off Java. War activity and additional purchasing power increased the demand for the somewhat reduced world supply of sugar. A comprehensive inventory of the supplies in early 1918 indicated an impending shortage of sugar in the United States.<sup>51</sup> Had there been no special governmental action to encourage sugar production, the large labor requirement and rising farm-wage rates probably would have reduced the production of sugar beets, especially in view of the prospects of better income from alternative crops.

The United States Sugar Equalization Board was set up in 1918 "to equalize the cost of various sugars and to secure their better distribution." In that year the Government took over the domestic-sugar output and all imports of sugar from Cuba. Strong measures were taken to stabilize prices and profits throughout the industry and to prevent hoarding. Owing to the acute transport situation an extensive regional distribution system was established. Sugar users were divided into five classes and some manufacturers, especially of nonessentials, had their allotments of sugar sharply curtailed. No manufacturer or distributor could deliver sugar to anyone who did not furnish a special certificate issued by the Food Administration. The household ration toward the end of the war was reduced to 2 pounds per capita per month. Consumption of sugar in the United States was practically constant from 1914 to 1918. With removal of restrictions soon after the signing of the Armistice the per capita consumption of sugar in the United States resumed its long-time upward trend. Data on production, distribution, conservation, and prices of sugar indicate that governmental control in 1917-18 was a marked success.

The depletion of livestock in Europe during the World War created a widespread shortage of meats and fats. With the shortage of ocean transports and the readiness of the United States to sell on credit, the Allies turned to that country for these supplies as well as for other foods. To meet the increased demand, steps were taken to reduce domestic consumption and to increase the production of meat animals, partly on the assurance of Government officials that farmers would be given "a fair share of a fair price paid by the consumer."<sup>52</sup>

The war greatly increased the demand for pork whereas the demand for beef was affected much less. The control over prices of beef was indirect; it comprised regulation of market supplies and curtailment of consumption. Meatless meals and meatless days were resorted to at various times.

<sup>50</sup>Joshua Bernhardt, "Government Control of Sugar during the War," *Quarterly Journal of Economics*, 33: 702 (August 1919).

<sup>51</sup>*Ibid.*, 687.

<sup>52</sup>U. S. War Industries Board, *Government Control over Prices* (Price Bulletin 3), p. 88.

Government purchases of hog products for the Army and Navy, the Allies, and the relief agencies were directed toward the announced purpose of keeping prices of hogs, in Chicago, from falling below \$15.50 a hundred. In an effort to increase hog production in 1918, the Food Administration set out to try to stabilize prices at an equivalent of 100 pounds of hogs for 13 bushels of corn. To carry out its price policy for hogs, the Government not only made purchases, but controlled receipts at primary markets through a system of embargoes and car allotments, licenses to dealers and packers, and to some extent, regulation on the profits of packers.<sup>53</sup>

The Food Administration found it difficult to maintain hog prices equivalent to 13 bushels of corn at Chicago. It therefore lowered the ratio from 13 to 11, by basing it on average prices for corn at local farmers' markets rather than on Chicago prices. Indignant farmers charged the United States and British Food Administrations with a lack of good faith.<sup>54</sup>

Dairy and poultry products were not subjected to definite price fixing, but dealers therein were restricted as to profits. Efforts of the Food Administration were also directed toward the prevention of hoarding, intertrading, wastage, and the regulation of marketing methods.

Many poultry raisers were selling their fowls early in 1918 because of high prices for poultry and the high cost of feedstuffs. Hens, originally intended for spring and summer egg production, were being sold. This was contrary to the advice of the Food Administration, and, on February 11, 1918, an order was issued forbidding licensees to ship, sell, or negotiate the sale of any live or freshly killed hens or pullets until April 30, 1918.

Despite a marked rise in prices of cattle feed and in cow slaughter, prices of milk rose surprisingly little until the fall of 1917. Wholesale dealers and, later, retail dealers in butter and cheese were required to keep their selling prices within specified margins of their cost or purchase prices.

This review of some of the things that happened in 1917-18 reveals many similarities and differences with the situation in 1940-41. The regulations and controls being adopted for military preparedness are following the same general pattern as in 1917-18. At that time the application of widespread price regulation and the use of priorities were new in this country and progress was necessarily slow. Today we have considerable knowledge from the first World War to guide us.

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<sup>53</sup>*Ibid.*, 89-92.

<sup>54</sup>Henry A. Wallace, *Agricultural Prices*, 34-35 (Des Moines, Ia., 1920).

### AGRICULTURAL HISTORY SERIES

- No. 1. *Some General Histories of Latin America*, by Wayne D. Rasmussen. 7p. April 1941.
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